

Claims

1. A complex of a pharmaceutical compound selected from the group consisting of opioids, hormones, anaesthetics and chemotherapeutic agents comprising the reaction product of:
 - 5 (a) one or more phosphate derivatives of one or more opioids, steroid hormones, thyroid hormones, anaesthetics or chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group; and
 - (b) a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having nitrogen functional groups and
10 proteins rich in these amino acids.
2. The complex according to claim 1 wherein the phosphate derivative is a phosphatide.
3. An oral formulation comprising a pharmaceutically acceptable carrier and the reaction product of:
 - 15 (a) one or more phosphate derivatives of one or more opioids, steroid hormones, thyroid hormones, anaesthetics or chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group; and
 - (b) a complexing agent selected from the group comprising amino acids having nitrogen functional groups and proteins rich in these amino acids.
4. The oral formulation according to claim 3 wherein the phosphate derivative is a
20 phosphatide.
5. The oral formulation according to claim 3 wherein the complexing agent is selected from the group consisting of glycine, arginine, lysine, histidine, casein and mixtures thereof.
6. The oral formulation according to claim 3 further comprising an effective amount of
25 the reaction product of:
 - (a) one or more phosphate derivatives of tocopherol; and
 - (b) a complexing agent selected from the group comprising amino acids having nitrogen functional groups and proteins rich in these amino acids.
7. The oral formulation according to claim 3 further comprising an enteric coating.

8. The oral formulation according to claim 3 further comprising a transfer protein or active domain attachment
9. A phosphatidyl derivative of a pharmaceutical compound selected from the group consisting of opioids, steroid hormones, thyroid hormones, anaesthetics or
5 chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group.
10. The phosphatidyl derivative of a pharmaceutical compound according to claim 9 wherein the phosphatidyl group is complexed with a complexing agent selected from the group comprising amphoteric surfactants, cationic surfactants, amino acids having
10 nitrogen functional groups and proteins rich in these amino acids.
11. A method for preparation of a phosphate derivative of a pharmaceutical compound selected from the group consisting of opioids, steroid hormones, thyroid hormones, anaesthetics or chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group comprising the step of reacting the pharmaceutical
15 compound with P_4O_{10} in the presence of a sodium salt of a fatty acid.
12. The method according to claim 11 further comprising the step of reacting the product from the P_4O_{10} reaction with a di or mono acyl glyceride to form a phosphatide.
13. The method according to claim 11 wherein the pharmaceutical compound is selected from the group consisting of morphine (CAS 57-27-2), hydromorphone, oxymorphone,
20 levorphanol, codeine, oxycodone, nalbuphine, buprenorphine, butorphanol, pentazocine, nalorphine (CAS 62-67-9), naloxone, naltrexone, levallorphan, levothyroxine (CAS 51-48-9), paclitaxel (CAS 33069-62-4), alfaxalone (CAS 23930-19-0), estradiol (CAS 50-28-2), estrone (CAS 53-16-7), estriol (CAS 50-27-1), ethinyl estradiol, progestins, methyltestosterone, testosterone (CAS 58-22-0), nandrolone
25 (CAS 434-22-0) and danazol.
14. A phosphate derivative of a pharmaceutical compound selected from the group consisting of opioids, steroid hormones, thyroid hormones, anaesthetics or chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group.
- 30 15. The phosphate derivative according to claim 14 wherein the phosphate derivative is a phosphatidyl derivative.

16. Use of a phosphate derivative of a pharmaceutical compound selected from the group consisting of opioids, steroid hormones, thyroid hormones, anaesthetics or chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group to make a medicament for use in treating humans.
- 5 17. Use of a phosphate derivative of a pharmaceutical compound selected from the group consisting of opioids, steroid hormones, thyroid hormones, anaesthetics or chemotherapeutic agents having a phenolic, primary alcohol, secondary alcohol or tertiary hydroxyl group to make a medicament for use in treating animals.